

**Use of Montana Highway Bridge Structures by Bats (MDT Project #8159):
a Quarterly Report (31 October 2003)**

submitted by:

Paul Hendricks and John Carlson
Montana Natural Heritage Program
P.O. Box 201800
1515 East Sixth Avenue
Helena, MT 59620-1800

The work conducted between 30 June and 30 September 2003 under this contract was devoted to the completed construction of two telescoping pole camera devices for our use during field inspections of bridges, and bridge surveys (conducted 14-19 July, 19-21 August, 9-13 September, and 16 September). Expenses charged to the project during this past quarter (\$15,873.15) were applied to salaries and benefits, travel, supplies, communications, and overhead.

A breakdown of expenses follows, showing the total expenses in each category to date ("Previously billed"), and expenses charged this quarter, between 30 June and 30 September 2003 ("Billable amount this period").

BUDGET

	Budget	Balance available	Total Expended: as of 6/30/03	Previously billed	Billable amount this period
Salaries	21,885.00	14,810.11	7,074.89	1,270.36	5,804.53
Benefits	13,992.00	11,546.18	2,445.82	489.09	1,956.73
Sub-total	35,877.00	26,356.29	9,520.71	1,759.45	7,761.26
Travel	3,827.00	(25.53)	3,852.53	---	3,852.53
Supplies	4,576.00	1,777.55	2,798.45	1,064.40	1,734.05
Contractual	300.00	300.00	---	---	---
Training	1,326.00	1326.00	---	---	---
Communications	60.00	(276.13)	336.13	---	336.13
Printing	400.00	400.00	---	---	---
Other	200.00	200.00	---	---	---
Subtotal	10,689.00	3,701.89	6987.11	1,064.40	5922.71
Total Direct	45,566.00	30,058.18	16,507.82	2823.85	13,683.97
Indirect Costs	7,451.00	4,810.00	2,641.00	451.82	2,189.18
Total Reportable	54,017.00	34,868.18	19,148.82	3,275.67	15,873.15

Two crews of two persons each examined a total of 136 highway structures in Carbon (21), Stillwater (45), and Yellowstone (70) counties during July and August. Evidence of night roosting by bats was present at 54.4% (74) of the total number of structures visited; bats were found at an additional 4 structures where other sign of use (droppings, staining) was not detected. Thus, 57.4% (78) of the 136 structures visited showed evidence of use by bats.

Day-roosting bats were present at 13 bridges; a single bat at one of the bridges was thought to be a sick individual that may have remained at a roost normally used only during the night. Twelve bridges (7 concrete, 5 wooden) were classified as day roosts; maternity colonies were present in 3 of the wooden bridges. Numbers of day roosting bats ranged from lone individuals at 5 bridges, to maternity colonies of up to at least 87 individuals. Four species of bats were found day-roosting: Big Brown Bat (*Eptesicus fuscus*) at 9 structures (including 2 maternity colonies), Western Small-footed Myotis at 2 structures, Little Brown Myotis (*Myotis lucifugus*) at 3 structures (including a maternity colony), and Hoary Bat (*Lasiurus cinereus*) at one structure (a single mother with young at a structure also occupied by a maternity colony of Big Brown Bats). Each day roost was visited 2-6 times during this quarter (including additional visits in September) to gather preliminary data on roost-use dynamics.